DOCUMENT RESUME

ED 243 880 SP 024 360

AUTHOR Clark, D. Cecil; And Others
TITLE Origins of Teaching Behavior.
PUB DATE Apr 84
NOTE 62p.; Paper presented at the Annual Meeting of the American Educational Research Association (68th, New Orleans, LA, April 23-27, 1984).
PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC03 Plus Postage.
DESCRIPTORS *Beginning Teachers; Behavior Development; Classroom Observation Techniques; Classroom Techniques; Elementary School Teachers; Elementary Secondary Education; Higher Education; *Preservice Teacher Education; Secondary School Teachers; Student Teacher Attitudes; *Student Teachers; *Teacher Attitudes; *Teacher Behavior; Teaching Experience; Teaching Methods; *Teaching Styles

ABSTRACT

Research suggests that preservice training has at best only a modest impact on a teacher's later teaching. The fundamental behaviors of a beginning teacher apparently originate from sources other than the training program. A study sought to identify the origins of first-year and student teacher behaviors and to define these behaviors more directly and precisely than previous studies have done. Six trained observers visited 44 first-year teachers (both elementary and secondary school) and 27 student teachers (elementary school only) approximately 8 times. While in the classroom, the observer recorded happenings in five areas: (1) teacher directions; (2) presentation of information; (3) questioning strategies; (4) evaluative feedback; and (5) materials and equipment used. Student attention levels were recorded when transitions were made from one activity to another. Immediately after each observation period, the teacher was interviewed, presented with a summmary of class activities, and asked why they did the things they did. Other data gathering techniques on teacher behaviors included: activity forms; generic source forms; student interviews; and student work and achievement data. Results suggest that teachers rely more upon their own experience than on their formal training as the basis for their teaching practice. Reasons for this are discussed, and teaching behavior origins are outlined in 16 graphs and tables. (JMK)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
✓ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

ED243880

Origins of Teaching Behavior

D. Cecil Clark
Ralph B. Smith
Timothy J. Newby
Verna A. Cook

Brigham Young University

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
D. Cecil Clark
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

LITERATURE

Research suggests that preservice training has at best only a modest impact on a teacher's later teaching. The fundamental behaviors of a beginning teacher apparently originate from sources other than his or her training program.

The purposes of this study were twofold: to identify the origins of first-year and student teacher behaviors, and 2) to define these behaviors more directly and precisely than previous studies have done.

A number of studies have sought the origins of teaching behaviors. Hoste (1982) asked student teachers working with middle school children to identify the sources of their teaching ideas. Eighteen percent said their ideas came from within themselves, 14 percent from fellow teachers at the school, and 10 percent from education courses.

In surveying 60 elementary and high school student teachers, Karmos and Jacko (1977) found that 57 percent considered the cooperating teacher to be most influential, 27 percent friends and family, 12 percent college teachers and courses, and 5 percent other teachers and administrators. Student teachers felt they were influenced in three ways: personal support, role development, and

SP024360

professional skills. Personal support and role development, while perceived as most important, were least fulfilled by the teacher training program.

Pigge (1978) looked at teacher competencies needed, teacher proficiencies demonstrated, and the place these proficiencies were developed. He found that only eight percent of the most highly needed skills were developed from preservice training; the majority were learned from classroom teaching experience. Specifically, competencies valued most but in which there was least proficiency were discipline, student motivation, student evaluation, and individualization. Adams (1978) and Ingersoll (1976) obtained similar results. Friebus (1977) found the greatest influence exerted on student teachers to be cooperating teachers, college supervisors, other teachers at the site, the student teachers themselves, teachers at the training institution, and classroom students and principals--in that order. Types of influence exerted were ideas, information about teaching, encouragement, and performance evaluation. At the same time Zahorik (1977) has shown that preparation programs are at least important sources of verbal teaching behavior. When presented with concepts such as questioning strategies, verbal praise, giving directions, lecturing, clarifying, and answering, practicing teachers identified undergraduate courses as the major source of these behaviors.

Yet evidence exists that undergraduate methods courses are not significant sources of classroom teaching behavior. The many studies conducted by teacher training institutions for the purpose of evaluating their pre-service programs show that in general, students and graduates of the program reflect two attitudes: (1) student teaching is the most valuable and realistic phase of the training program (e.g., Baer & Foster, 1974; Carpenter, 1974; Daly, 1977); and (2) methods courses have little relevance to how teaching actually gets done in the classroom (e.g., Raths & Katz, 1982). Iannocone (1963) concluded that during field experiences, student teachers often ignored theory and resorted to what works, even though what works in the short run is not always effective in the long run. Gage (1972) also has questioned whether what is actually taught in teacher education programs contributes to what teachers need in the ongoing classroom.

As a source of teaching behavior, college supervisors take a back seat to cooperating teachers (McAlay, 1960; Yee, 1969; Freibus, 1977; Karmos & Jacko, 1977). At least one exception to this general conclusion is the study by Soares & Soares (1968). Further, Morris (1974) found no significant difference in performance between student teachers having a college supervisor and those without one. Others have argued the role of the college supervisor to be insignificant as a source of student teaching behavior (Kline, 1975; Patty, 1973).

In general, studies suggest that a person's repertoire of teaching behaviors originates from a variety of sources, most of which are tangential to or outside the training program itself. The person's own ideas, the cooperating teacher, and daily teaching experience are powerful factors. In some studies, a group of generic, pre-determined teaching behaviors were presented to the teacher. The teacher was asked to supply an origin for each--regardless of whether he or she had ever exhibited that behavior in the classroom. In other studies, the teacher was asked to select the behavior's origin from a list of origins (e.g., Karmos & Jacko, 1977; Zahorik, 1977; Pigge, 1978; Hoste, 1982). One weakness is that the teacher may not regularly exhibit the behaviors appearing on the list. The teacher was asked to identify a source for a behavior he or she does not display--or displays only infrequently. A second weakness was that these behaviors are too often general and are easily misinterpreted by the teacher. These factors render judgements less valid. In the current study, the actual classroom behaviors of each teacher were observed during regular teaching, and the teacher was asked to identify the source of each behavior immediately after it was exhibited.

QUESTIONS

1. What classroom teaching behaviors are exhibited by student teachers and first-year teachers?

2. In what subject-matter areas are these behaviors exhibited?

3. What are the origins of these behaviors?

4. Are there differences between student teachers and first-year teachers?

PROCEDURE

Training of Observers

Six master's and doctoral students in Elementary Education and Instructional Science were selected as observers. They were trained in the systematic gathering of classroom narratives, which included establishing reliability of observations among members by practicing within the same classroom. Additionally, sample narratives from each observer were critiqued by the team to check 1) adherence to the narrative format and 2) precision of recording. Finally, the team met with the project director regularly, and sample narratives were reviewed for quality control and agreement on needed observational adjustments.

Sample Selection

First-year teachers

Of the new teachers hired in the three school districts surrounding the University, approximately 85 percent were graduates of that school. These districts totalled 95 schools, 64 elementary, 10 junior high, 10 senior high and 11 special schools. The socio-economic level varied somewhat within and between districts, but overall it was homogeneous and comparable to those of urban cities in the Rocky Mountain states.

A list of schools containing first-year BYU graduates was compiled. The principal of each school was contacted by the project director and invited to participate in the study, which had been previously approved through the

superintendent and announced earlier to all principals in each district. Three of the 95 schools declined.

The goal was to observe each participating teacher eight hours. Since the observation team consisted of only six members, gathering this much overall information from a single teacher curtailed the total number of teachers that could be observed.

From the participating schools, a sample pool of 50 teachers was chosen who met two criteria: 1) they were one of a small group of geographically clustered teachers who could be reached within twenty minutes driving time from the university, and 2) they did not appear to be systematically different from other teachers within the school in which they were located. Of the 50 contacted, data were gathered on 44. Several declined to participate and several dropped out for such reasons as not wanting to be observed at that time of the year, pregnancy, illness, or plans to leave the district during the year.

A cluster of five teachers was typically spread over two or three schools. Each of the six observers carried a load of about three first-year teachers and two or three student teachers who had been assigned to the same schools. In all, there were 44 first-year teachers, 32 elementary and 12 secondary. The elementary teachers were distributed over 20 schools in the three districts, while the secondary teachers were spread over six schools.

Student teachers

From the Education Advisement Office, a list was obtained of all students involved in student teaching Fall Semester 1982 and Winter Semester 1983 in the three target districts. The group totalled 82. Groupings of first-year and student teachers were identified, and those student teachers whose schedules most nearly fit the observers' schedules in the target schools were selected for inclusion in the study. There was no reason to believe that selecting student teachers on this basis was systematically different from a strictly random procedure. Twenty-seven student teachers were selected; all taught in elementary schools and were distributed over seven schools in the three districts. They were informed by their university supervisors that classroom observation was an intregal part of the regular training, and that they would be observed from six to nine hours over the student teaching experience.

Classroom Narratives

This was an ongoing behavioral record of the classroom teacher. While sitting in the classroom, the observer recorded happenings in the following areas:

1. Teacher directions

All verbal instructions given by the teacher were recorded verbatim. For example, "Class, I want you to put away your math assignments and get out your reading books." Copies of any written instructions passed out by the teacher during this time were also obtained.

2. Presentation of information

The teacher's method of presenting information was recorded, for example, lecture, game, question and answer session, film.

3. Questioning strategies

Questions asked by the teacher were copied verbatim. For example, "Who can tell me where this river comes from?" or "Nancy, why are you having trouble finding the page we are reading from?"

4. Evaluative feedback

Here the observer recorded how the teacher let students know when they had done something well or poorly. Whenever possible, the teacher's behavior or verbal statements were recorded verbatim. These statements were most often directed at the student's behavior or academic performance. For example, "Students, you have worked on your assignments so quietly I am going to erase two penalty marks on the board, which means you can now go out for recess."

5. Materials and equipment used

Any materials used in connection with the teaching were described--chalkboard, projector, posters, drawings, demonstration materials. Further, any materials given to or used by the students in connection with the teaching activity were recorded, for example, scissors, construction paper and paste used to create mobiles.

6. Classroom management

Procedures followed by the teacher in managing or controlling students were recorded, such as grouping arrangements, resource corners, reading groups, table work. Also, management behaviors exhibited by the teacher were recorded, for example, attention-getting devices, discipline procedures, consequences of breaking classroom rules.

The initial recording by the observer was done in abbreviated note form; later during the same day, the notes were expanded into a complete and detailed classroom narrative. Quotation marks signaled verbatim wording from the teacher and student; a colon marked each quote. Each narrative contained layout of the classroom for that day, any written materials the teacher used during that hour of observation, and samples of written student work. A cover sheet accompanied the narrative, identifying the teacher's name, subject being taught, time, date, and observer. Notes themselves were taken chronologically; time was noted in the margin every five minutes or when there was a change in classroom activities. No more than one hour of observation per day was conducted on any given teacher.

Attention Coding

Every ten minutes--or every five minutes after students made a transition from one activity to another--the observer recorded student attention levels. Different levels of attention were 1) engaged academic (e.g., a student reading a book or listening to the teacher); 2) engaged procedure (e.g., student looking for a page in a book or going to the

paper box for paper to work on an assignment); 3) waiting (e.g., student waiting at her desk for the teacher to come and help); 4) off task (e.g., student gazing out the window or talking to a friend).

The observer had before him a chart with the names of class members; attention coding was conducted on each student in the class every ten minutes. Additionally, whenever the class was separated into small groups, attention of the group was also recorded. Scoring was conducted as follows: at each ten-minute interval, the total number of students identified as "engaged academic" (the other three levels were not recorded) was divided by the total number present. Thus at one interval in a class of 25, 22 might be "engaged academic," or 88 percent of the class attending. A percentage was obtained at each interval during the class period, and the percentages were averaged for that period. For example, 88, 90, 80, and 85 percent would average to 86 percent over that class period.

Immediate Teacher Interviews

Participating teachers agreed at the outset to be interviewed immediately after each observation period. These interviews lasted five to fifteen minutes and were conducted in or outside the room during a logical break in the activities, or during student seatwork. The observer had before him each of the activities, methods, and ideas engaged in or presented during the past hour (including a drawing of the student work groups and a description of the

bulletin board typifying the Thanksgiving theme). For each, the observer would say, "You did_____today. Where did you get the idea for this?" The teacher would confirm that he or she had in fact performed the activity and explained where it came from. Her comments were written down verbatim. For example, the observer might say, "You sang a song about the multiplication facts you were learning today. Where did that come from?" The teacher might respond, "I got the idea from a display at the Teachers' Convention in Salt Lake City last year."

After obtaining the source for each method/idea/actifvity, the observer asked, "Did you do anything else that I missed?" If the teacher volunteered something not previously mentioned, the observer recorded it and then asked, "Where did this come from?"

Teachers often were repetitive in their teaching, using the same methods and procedures over and over. When this was the case and the observer already knew the source of a method from a previous interview, the immediate interview was condensed, and it focused only on new practices. In some cases where the source of every observed activity had already been identified, the immediate interview was omitted.

Activity Forms

Since a team member observed a teacher for only one hour each week, there needed to be an "observer-absent" narrative covering the other time during the week. Teachers

were paid to spend fifteen to twenty minutes each week writing down all the activities, ideas, methods, and materials used in their classroom that week and, opposite each, where that particular method or idea came from. For example, a teacher might write in the "Acitivity/Idea/Method" column: "We conducted an art activity on the Halloween Witch." In the "Where learned" column she wrote: "I got the pattern and idea for this from Mrs. Hadden, another second grade teacher in the school." Or, "For reading we played a word matching game called concentration." I was introduced to this game while I was student teaching. My cooperating teacher used it my first week there." On the next visit to the classroom, the observer collected this activity form from the previous week.

Generic Source Form

It was possible for the observer to pick up specific activities (such as a singing game) during a given hour, yet fail to attend to more general styles, methods and orientations the teacher also exhibited, such as the teacher's general question-asking approach or method for demonstrating things. The Generic Source Form was designed to "round out" the observations and draw observer attention to general approaches the teacher was using. At least one interview was devoted to identifying the origins of the teacher's more generic approaches. The observer asked,

"Would you tell me where the following came from? The way you

Give directions

Ask questions

Reinforce student responses

Demonstrate things

Review materials

Evaluate student learning

Discipline

Decorate the room

Control the class

Circulate about the room

Go from one activity to another

Have students practice

Get students to pay attention

Present this

Correct students"

Teacher responses to each were recorded verbatim. Sometimes these sources had already been identified when talking about a specific practice, but new ones often emerged through the use of this form. Also, it provided a more complete picture of the teacher's total teaching and its origins.

Student Interviews

Whenever possible, students were individually interviewed to gather at least some data on the impact of various teacher behaviors. Students were quietly called out

of the room and interviewed in the hallway at minimally disruptive times, or they were informally interviewed on the playground during recess. These interviews were conducted as naturally as possible, yet students were asked questions designed to reveal the effect of those methods and ideas the observer had recorded for that day. The questions typically asked were

1. What are some things you do in your classroom that you like most?

2. What are some things you do that help you learn most?

3. I noticed you did_____in class today. How well does that help you learn?

4. What things does the teacher do in class that help you learn most?

5. Since I am not here observing every day, what are the things you do in class in general that help you learn most?

These questions--as well as the interview itself--had to be necessarily general and simple because of the young children, but at least some anecdotal data were gathered on the effects of a given teacher practice.

Student Work and Achievement Data

Student work was gathered that could be directly associated with teacher practices being observed. Turned-in assignments and classroom tests constituted the majority of these data. Here again, this information was obtained in an

attempt to examine the effects on students resulting from a given teacher activity.

General Procedure

Each observer contacted those target teachers to whom he or she had been assigned, explained the study, and asked if they would be willing to participate. The purpose of the study, they were told, was to trace teaching behaviors to their origins. With but few exceptions, those target teachers selected from the pool agreed to be observed. The observers next conducted a program interview with each teacher, to determine class locations, number of students, subject matter taught at each hour of the day, and schedule of events over the next three months.

An observer averaged five teachers (first-year and student teachers) over each three-month period and observed approximately two teachers per day for one hour each. At no time did anyone put in more than twenty hours per week observing and writing up narratives.

Throughout the nine months of data-gathering, team meetings were held biweekly to coordinate observations and maintain quality control. In the meetings, narratives from each team member were discussed and evaluated in order to maintain precision and detail in recording, as well as similarity in data gathering among the groups.

Observations on most teachers were completed during the fall semester, which extended from September through December. Some teachers, it was decided, would extend their

observations over the entire school year in order that major shifts in teaching behaviors and their origins could be identified. For winter semester, 1983, new subjects were selected from the teacher pool, by the same procedures as for the original group. This second group of teachers was observed from January through May.

RESULTS

The average number of observations made on the 71 teachers was 8.2. For first-year teachers it was 9.2, with a range of 4 to 14; for student teachers it was 7.1, with a range of 4 to 11.

Teaching Behaviors

Obtaining The Behaviors

The behaviors were obtained from three sources: 1) Classroom narratives, 2) Activity Forms, and 3) Generic Forms. Because a teacher often repeated behaviors over the observation periods, a particular behavior was counted only once for each teacher. If a teacher was observed playing "bingo math" with her students, it was so recorded. If that same teacher engaged in "bingo math" a week later, it was not counted again for that teacher. Thus there existed for each teacher a list of only "novel" behaviors, that is, different behaviors.

These individual teacher behavior lists were next consolidated into a master list of teaching behaviors. If both Teachers A and B showed "bingo math," it was entered on the master list only once. This overall list contained only novel or different behaviors as well. From the 71 teachers, 1,346 novel behaviors were identified (the total number of behaviors appearing in the narratives was far greater than this). The number of novel behaviors for the 44 first-year teachers was 907, an average of 20.6 per teacher. The novel behaviors for the 27 student teachers was 439, an average of

16.3 per student teacher. The first-year teachers, then, exhibited a wider range of behaviors than did the student teachers.

Classifying The Novel Behaviors

A classification scheme was generated to group the 1,346 novel behaviors exhibited by the 71 teachers. First, a sample was selected and sorted into natural groupings. Four initial groupings emerged: "Instruction and Presentation," "Application of basic skills," "Management," and "Other." As other behaviors from the sample were sorted and "fitted" into these initial categories, some had to be broken down and others created. The "Instruction and Presentation" category was subdivided to include "Initial instruction," "Follow-up instruction," and "Related instruction." The "Application of basic skills" category was divided into "Reinforcement activities and games," and "Drill/Practice/Review." To more accurately describe items, the "Other" was renamed "Enrichment, Time out, and Filler Activies," and a new category, "Evaluation of Student Progress," emerged. The six behavioral categories appear in Figure 1. Once the categories were established, the 1,346 novel behaviors were readily assigned.

Reliability of Classifying The Behaviors

As one estimate of the reliability of classifying, the project assistant who developed the classification scheme sorted the 1,346 behaviors into the six categories. Several days later, she conducted a second sorting, blind to her

decisions on the first sorting. The coefficient of contingency for these two sortings was .77.

Next, a stratified random sample of the novel behaviors was selected from the major subject areas in which they had been observed (math, reading, science, social studies, spelling and writing). Six were selected from each of the six subject areas, for a total of 36. Four public school teachers volunteered to classify these 36 behaviors into the six categories. The raters ranged from five to eleven years teaching experience and were currently teaching grades one, three, five and senior high. (The latter teacher was dropped because she was mostly unfamiliar with the behaviors to be sorted.) These three sortings, along with the two earlier sortings by the project assistant (sortings on the 36 behaviors had been selected out for comparison) produced five sortings with a reliability coefficient of .80 using Cronbach's Alpha. Thus the reliability of classifying was repectably high.

Occurrence of the Behaviors

Figure 2 shows that 30 percent of the teaching behaviors were Instructing and Presenting, 26 percent Reinforcing, 21 percent Managing, 13 percent Drill and Practice, 6 percent Enrichment, Time out, and Filler activities, and 4 percent Student evaluation. Figure 2 also shows that first-year teachers engaged in considerably more "drill and practice" behavior than did student teachers, while student teachers exhibited more "reinforcement,

activities and games." Student teachers also engaged in more "management and instructional" behaviors than did first-year teachers, and probably a few more instructional behaviors. However, the major difference between the two groups was in drill and practice behavior.

Figure 3 shows these teaching behaviors (combined) over subject areas for all teachers. Most behaviors were exhibited in math, reading, science, art, and writing. Few behaviors were exhibited in health, history, P.E. and spelling. First-year teachers exhibited considerably more behaviors in writing than did student teachers, and slightly more in social studies. Student teachers, on the other hand, exhibited a few more in math and science.

Figure 4 shows the six behavioral categories and their occurrence over subject areas. "Instructing and Presenting" occurred in all subject areas, but somewhat more in science, math and reading. "Reinforcement" occurred in all subject areas, but somewhat more in math, science, art and reading. "Drill, practice and review" was a bit more sporadic, most of it occurring in writing, and much lesser amounts in reading and math. "Enrichment, time out and fillers" occurred predominantly in art. There was little evidence that evaluation took place, and what there was occurred in math and reading.

Figure 5 shows each teaching behavior over subject areas; first-year and student teachers are separated. In general, the two groups were similar in behaviors exhibited

over each subject area. The one exception was that first-year teachers exhibited considerably more "drill, practice, and review" over all areas than did student teachers.

Figure 6 describes the occurrence of each behavior within a given subject area for all teachers. In art, there were equal amounts of instructing, reinforcement and enrichment. In English, instructing was the predominant behavior; some drill and practice also occurred. Health was predominantly instructing and reinforcing, while history was similar, but more drill and practice took place. More reinforcement than instruction took place in math. Music was similar to history. In Reading, instructing, reinforcement and drill happened, and a considerable amount of management. Science and social studies were strongly instructing, with about half as many reinforcement behaviors. Writing was overwhelmingly drill and practice. Evaluation was minimal in all subject areas.

Figure 7 separates first-year and student teachers. In art, first-year teachers showed considerably more instructing, while student teachers showed more reinforcement, activities, and games. In English, on the other hand, student teachers showed considerably more instructing and reinforcement, while first-year teachers showed more management, drill and practice. In health, student teachers showed more instructing and less reinforcement activities and games. In history, first-year teachers showed more instructing, while student teachers

showed more reinforcement, activities and games. There were similar differences within most of the other subject areas. The most significant difference, however, was that across subject areas, student teachers engaged in less drill, practice and review than did first-year teachers.

Origins of Teaching Behaviors

For each of the 71 teachers, origins of teaching behaviors were obtained from three sources: 1) Immediate Teacher Interviews, 2) Activity Forms, and 3) Generic Forms. Overall, first-year teachers averaged 8.2 different origins, while student teachers averaged 5.9. This indicates that teaching behaviors of first-year teachers come from a wider range of sources than does that of student teachers.

Initially, a sub-sample of teaching behaviors from the 71 teachers was selected, and the origins of each behavior for each teacher were pulled from the forms and entered onto a list. These origins were grouped into naturally emerging categories. Next, a tentative descriptive title was assigned to each category. Additional origins were "fitted" into these categories. During the process, some categories were subdivided, others consolidated, new ones formed, and some dissolved. Titles were revised to be more inclusive or more specific, or renamed to be more descriptive of the entries within that category.

By the time the remaining origins on the list were assigned, the categories and their titles had stabilized. Thereafter, each origin from every form from the remainder

of the 71 teachers was coded into these categories. Seventeen major origins (see Figure 8) for the uncategorized behaviors emerged. Figure 9 shows the frequency and percentage of each origin for all teachers, Figure 10 for first-year teachers, Figure 11 for student teachers, Figure 12 for first-year elementary, and Figure 13 for first-year secondary.

Reliability of the Origins

How reliable were the teachers' statements of the origins of their teaching behaviors? To address this question, ten teachers were randomly selected from the 44 first-year teachers. Three weeks following the immediate teacher interview, an observer conducted a second interview with each of the ten teachers. He told the teacher that some of the interviews had been "misplaced" and that, while he still had the observed behaviors, their origins had become lost. The observer then presented the teacher with ten behaviors previously observed, and asked if the teacher would be willing again to identify the origin of each. Unknown to the teacher, three bogus behaviors had been inserted into the list of ten. These had not been previously exhibited by the teacher but were plausible for that particular person. They were included to check the faking of origins. This same procedure was followed with each of the ten teachers.

The average percent agreement between the origins identified the first time and those identified the second

time was 73. That is, on the average, 73 percent of the origins identified the first time were also identified the second time by the teachers. Also, of the 30 bogus behaviors presented to the ten teachers, 93 percent were correctly identified as bogus Teachers reliably identified the origins of their teaching behaviors.

Validity of the Origins

How valid were the teachers' stated origins of their teaching behaviors? This is a difficult question not completely answered by the study. Originally, the plan was to establish concurrent validity by checking the origins against objectives in the teacher education program. All objectives in the program had been extracted from written syllabi, course outlines, and interviews with individual faculty members. There were 798 total, 286 from the elementary program and 512 from the secondary program. Those representing actual teaching competencies were earmarked. Of the 286 in elementary, 39.8 percent qualified as teaching competencies; of the 512 in secondary, 63.3 percent qualified. The exact origins of these intended teaching competencies were then determined as closely as possible. For example, one teaching competency was "using energizers during seatwork assignments." This behavior originated in Elementary Education 300.

These objectives and their origins were to represent the criteria against which teacher responses could be validated. As an example, suppose the observer

independently recorded the teacher as using "energizers" to promote seatwork. If, in the immediate teacher interview, this teacher confirmed her use of "energizers" and identified their source as Elementary Education 300, the validity of her response would be well established.

This validation method turned out to be mostly unsuccessful, because few university-developed behaviors were so exhibited that they could be observed; and when they did appear, more often than not they were in a mutated form.

Still, the observers consistently reported the ease and specificity with which teachers identified the origins of their behaviors. Indeed, we wondered if any origins could not be identified? During the first semester's data gathering, 821 total teaching behaviors were recorded by team members as they sat in the classrooms of 33 teachers. In the immediate teacher interviews, these teachers identified origins of 813, or 99 percent, of these behaviors. While the validity of their responses is still to be established, these data do suggest that teachers had no trouble giving their perceived origins.

Most Frequent Origins

From Figure 9, it is clear that the single most frequent origin of teaching behavior was the teacher's "own idea." This accounted for nearly one-third of all the origins. The "cooperating teacher or student teaching experience," and "instructors or class within the Teacher Education Program" tied for second. Combining these two,

the teacher education program accounted for another one third of the origins. Finally, the remaining one third was a potpourri. Within this group, the college supervisor was a most infrequent origin, accounting for less than one percent of teaching behaviors. Of some surprise, classes and instructors in the teacher education program were as much responsible for teaching behaviors as were the cooperating teacher and student teaching. In other studies, field experiences far outstrip university classes in importance.

With first-year teachers (Figure 10), more origins were "my own idea" than "cooperating teacher or student teaching." With student teachers, on the other hand, the oppositie was true (Figure 11). For them, "cooperating teachers or student teaching" was the largest single origin, followed by "own idea." Nonetheless, it is clear that first-year teachers' "own ideas" arising out of teaching experiences played a large role in determining their behavior.

Origins for elementary and secondary teachers can be seen in Figures 12 and 13 respectively. "My own idea" was a more frequent origin for secondary teachers; "cooperating teacher or student teaching" was more frequent for elementary teachers. Here again, in both groups teaching experience was paramount. Other, smaller differences, can be noted by comparing Figures 12 and 13.

Figure 14 shows the origins of teaching behaviors after they have been categorized.

Twenty-four percent of the "instructing and presenting" behaviors came from "my own idea," 26 percent from "my cooperating teacher or my student teaching experience," 14 percent from "a professor or class within the teacher education program," 12 percent from "a book or program in the school or district." Seventy-six percent of the instructing behaviors, then, came from these four origins.

Twenty-eight percent of the "reinforcement, activities and games" came from "my own idea," 14 percent from "my cooperating teacher or my student teaching experience," 11 percent each from "a professor or class within the teacher education program" and "a teacher in my school." Thus, 64 percent of these behaviors came from four origins.

Thirty percent of the "management" behaviors came from "my own idea," 20 percent from "my cooperating teacher or my student teaching experience." These two sources accounted for 50 percent of the management behaviors which teachers exhibit.

Thirty percent of the "drill, practice and review" behaviors came from "my own idea," 17 percent from "my cooperating teacher or my student teaching experience." These two sources accounted for 47 percent of the teaching behaviors.

Nearly 60 percent of the "enrichment, time out and fillers" came from "my own idea."

Thirty percent of the "evaluation" behaviors came from "my own idea," 17 percent from "my cooperating teacher or student teaching experience," and 14 percent from "a professor or class within the teacher education program." These three sources accounted for 61 percent of the behaviors.

These data suggest that the six major behaviors come generally from similar origins and in parallel proportions: one-third are from "my own idea," somewhat less than one-third from some aspect of the teacher education program, and one-third from a number of other sources. (These are essentially the same results as those obtained when using unclassified teaching behaviors.)

Figure 15 is identical to 14 but separated into first-year and student teachers. For first-year teachers, as compared to student teachers, more instructing behaviors came from their "own idea." This holds as well for reinforcement, management, and drill and practice, and evaluation. For student teachers, as compared with first-year teachers, more reinforcement, activities and games came from "my cooperating teacher and student teaching experience." Other differences between the two groups are evident in Figure 15.

Figure 16 contains the same data as Figure 14, broken down into first-year elementary and secondary teachers. For secondary, as compared with elementary, more instructing, and management behaviors came from "my own idea." For

elementary, as compared to secondary, more instructing, reinforcement, management, and drill and practice behaviors came from "cooperating teacher or student teaching experience." Perhaps the greatest difference between the two groups is found in enrichment, time out and filler behaviors. For secondary teachers, the sole origin of these behaviors is "my own idea," whereas they arise from multiple sources among elementary teachers.

Attention Coding

The results of the attention coding were as follows: On the average, students from all classes over all observations were on task 89.5 percent of the time. Students of first-year teachers were on task 87 percent of the time (Elementary = 87.6 percent, Secondary = 85.1 percent), and those of student teachers, 92 percent of the time. Given the fact of four possible attention levels (engaged academic, engaged procedure, waiting, off task) and only engaged academic recorded--at ten-minute intervals--this is a surprisingly strong result. Students were on task and ready to learn a very high percentage of time.

Objectives of the Teacher Education Program

Students faced a remarkably large number of objectives to attain as they moved through the teacher training program. There were 798 total, 286 from the elementary program and 512 from the secondary program. Of these, only 39.8 percent in elementary were actual teaching competencies, while 63.3 percent in secondary could so

qualify. This suggests first of all a staggering number of objectives to be achieved within the short time frame of the program. Second, only one-third to somewhat more than one-half of all these objectives are aimed at actual teaching competencies.

Student Data

Considerable student data were gathered to assess the impact of the teaching behaviors on student learning. These data are being prepared in a second report. A third report will show the extent to which these teaching behaviors result from actual objectives found in the teacher preparation program.

SUMMARY OF RESULTS

The most frequent teaching behaviors exhibited by all teachers across all subject areas were instructing and presenting, followed closely by reinforcing and managing. Teachers were engaging in few drill, practice, review, enrichment, time out and filler behaviors. Finally, they exhibited little or no evaluation behaviors.

Most teaching behaviors were being exhibited in math, reading, science, art and writing. Few teaching behaviors occurred in health, P.E. and spelling. This suggests that teachers spent more time teaching some subject areas than others. Considerable instructing, presenting, and reinforcement took place, but little drill and practice in science, math and reading. Little or no evaluation took place in any of the subject areas.

First-year teachers exhibited a larger repertoire of novel teaching behaviors than did student teachers; and their teaching behaviors came from a wider range of origins. First-year teachers engaged in considerably more drill, practice, and review in all subject areas than did student teachers, and they spent more time in writing. Student teachers, on the other hand, engaged in more management, reinforcement, activities, games, and instructional behaviors than did first-year teachers. Within each subject area, first-year and student teachers differed somewhat in the behaviors they exhibited.

The single greatest origin of teaching behaviors was the teacher's "own idea." Another one-third came from some aspect of the teacher education program, and the final one-third from a potpourri. In this last group of origins, the college supervisor accounted for less than one percent of the teacher's behavior. A class or instructor in the teacher education program was found to be as important as the cooperating teacher or student teaching experience in forming teaching behaviors. When all teaching behaviors were classified into six major behaviors, each showed essentially the same composition of origins: "my own idea" was at the top in each case.

First-year teachers usually relied more on their own ideas than did student teachers, while the latter were more influenced by the teacher education program. The same held true for secondary teachers when compared to elementary teachers.

Students in the classrooms of these teachers were "on task" a surprisingly high percentage of the time.
The number of objectives to be achieved by a teacher candidate going through the teacher education program appears unrealistically large, and only a third to a half deal with actual teaching competencies to be used in day-to-day teaching.

DISCUSSION

Results from this study suggest that teachers rely more upon their own experience than their formal training as the basis for their teaching practice. Also, while first-year teachers exhibit a wider range of origins and demonstrate a greater variety of teaching behaviors than do student teachers, the behaviors and the origins for both groups are not markedly different. A variety of explanations may account for these two findings. First, the curriculum of teacher training programs is meager in actual teaching competencies. There exists few teaching behaviors to be learned in the first place--even though programs assume and suggest otherwise.

Second, while prospective teachers may be exposed to these meager competencies, they seldom develop serious proficiency in them. Having a student explain and differentiate several methods of classroom control--and even demonstrate them before a mircoteaching camera--falls far short of proficiency.

Third, competencies learned through the teacher education program often fly in the face of those learned through personal teaching experience. When this is the case, program-developed skills always end up a poor second. A painfully widespread reaction is also common among first-year teachers: "The method I learned simply didn't work when I got out there in the real world. Can't they teach us something we can actually use."

Fourth, a person's general teaching repertoire is already present (and lying dormant) prior to entrance into the teacher education program. This repertoire, developed over a lifetime as a student watches others teach, is simply awakened in student teaching and activated in regular teaching. The training program, student teaching, and early experience merely prompt small adjustments and refinements in an already-present teaching style. This last explanation would explain why significant changes are not observed during the period of student teaching or regular full-time teaching.

These data suggest that our best trained candidates quickly matriculate into the more powerful school of day-to-day experience. Training programs would do well to spend more time teaching teachers how to learn carefully from their own experience.

An additional finding of concern is the minimal influence of the university supervisor on first-year and student teachers. Quite clearly, this finding raises questions about the efficacy of the traditional role of the supervisor: one who dashes in, observes, evaluates, makes a few suggestions about the teacher's technique, then leaves. Greater attention needs to be accorded the vital training role of the cooperating teacher. The uneasy partnership between university supervisor and cooperating teacher must be productively enhanced and appropriately formalized--with some bold new approaches to student teaching supervison.

Figure 1

Behavioral Categories

1. Instructing and presenting behaviors

Initial Instruction: Introducing a skill or concept for the first time.

Examples: Introducing the concept of "conservation," starting students on their multiplication tables, an introductory skill lesson on specific letter groupings in words, having students alphabetize spelling words, presentations by resource people or students, showing films, using the bulletin board to teach a new concept, teaching students how to do Origami Art.

Follow-up Instruction: Repeating or providing an additional lesson on a previously introduced concept or skill.

Examples: Showing students a video about a book they have been reading, working example math problems on the board following a lesson on division, reteaching the life of Eskimos using different new pictures the second time.

Related Instruction: Presenting a lesson related to a previously introduced concept or skill.

Examples: During spelling instruction time out is taken for a lesson on root words, alphabetizing spelling words that are being learned, showing how to sew leather during a lesson on Eskimo hunting, visiting the local post office during a unit on letter writing.

2. Reinforcement Activities and Games

Reinforcement of a concept or a skill that has already been taught; any game-oriented activity whether written or verbal designed to solidify recently acquired information or skill; hands-on activities involving manipulation of concrete materials that serve as the referents for concepts; art projects designed to reinforce a recently-learned concept.

Examples: Using a times table crossword puzzle, making leaf prints to reinforce the concept of "leaf shape," playing a Bingo game to overlearn vocabulary words, producing student plays to reinforce a story sequence in a book.

3. Management

Management of the room environment and students, both singly and as a group, which includes discipline techniques, reward and motivation activities, and transition strategies.

Figure 1 (Continued)

Examples: Decorating bulletin boards, displaying pictures of animals during a unit on Africa, rearranging work tables in the room, cleaning desks, passing out papers for seatwork assignments, giving stars for all letters shaped correctly on a handwriting assignment, stopping the class for a lecture on the rules and how they are being broken, writing names on the board of students who will be staying in for recess, passing out tokens to students who have completed their seatwork assignments, sending a student to the principal's office, moving students from their desks to the reading area for stories.

4. Drill and Practice and Review

The use of worksheets, oral drills, flashcards, computer programs, memorization tasks, oral and silent reading activities to practice and review previously learned skills.

Examples: Using spelling flashcards to memorize words individually, giving students a daily set of homework in math, having students write first person stories, solving math puzzles on a computer, conducting an oral review before a quiz on the major oceans and rivers, playing team games where points are given for correctly naming the state capitals.

5. Enrichment, Time out, and Filler Activities

Activities during the regular classroom time which do not fit into any of the other categories. Some of these were designed to promote aesthetic experiences; some were to give students a break from tedious mental work; some could be engaged in after completing assigned work; some were time fillers until the bell rang; and some were "optional" activities.

Examples: Spotlighting the birthday child, Halloween party planning, computer games, Easter egg hunt, making holiday mobiles, making ornaments for the school Christmas tree, enjoying unrestricted reading time, making designs through paper folding, watching the world series on television, putting heads down on the desk and waiting until the bell, listening to music.

6. Evaluation of student progress

Teacher observation of students, giving written and oral tests, filling out record keeping charts, student self-evaluation activities, peer evaluation, and parent evaluation.

Examples: Having students grade each other's work, starting each math class with a quiz, giving a weekly pretest on spelling words, making a book chain in which each link is a book the student has read, having students put an "x" by words they do not know in a vocabulary list, putting stars by names of students who have turned in their assignments, getting student materials ready for parent-teacher conferences.

Figure 2

Occurrence Of Each Behavior

	First-year Teachers (N=44)		Student Teachers (N=27)		Combined (N=71)	
Behavior	f	%	f	%	f	%
Instructing and Presenting	267	29.4	142	32.3	409	30.4
Reinforcement, Activities, and Games	199	21.9	148	33.7	347	25.8
Management	181	19.9	104	23.7	285	21.2
Drill and Practice and Review	169	18.6	2	.5	171	12.7
Enrichment, Time out, and Filler activities	51	5.6	29	6.6	80	5.9
Evaluation of Student progress	40	4.4	14	3.2	54	4.0
Totals	907	100	439	100	1,346	100

Figure 3

Occurrence Of Behaviors
Over Subject Areas

Combined Behaviors

Subject Area	First-year Teachers (N=44) f	%	Student Teachers (N=27) f	%	Combined (N=71) f	%
Art	91	10.0	54	12.2	145	10.8
Discipline methods	72	7.9	32	7.3	104	7.7
English	37	4.1	11	2.5	48	3.6
Equipment management	7	.8	12	2.7	19	1.4
Games	29	3.2	7	1.6	36	2.7
Health	15	1.6	7	1.6	22	1.6
History	20	2.2	3	.7	23	1.7
Math	104	11.5	64	14.6	168	12.5
Miscellaneous	30	3.3	17	3.9	47	3.5
Music	27	3.0	19	4.3	46	3.4
P.E.	30	3.3	12	2.7	42	3.1
Reading	111	12.2	55	12.5	166	12.3
Room management	27	3.0	22	5.0	49	3.6
Science	89	9.8	57	13.0	146	10.8
Social studies	41	4.5	8	1.8	49	3.6
Spelling	44	4.8	24	5.5	68	5.0
Test and review	20	2.2	11	2.5	31	2.3
Writing	113	12.5	24	5.5	137	10.2
Totals	907	100.0	439	100.0	1346	100.0

Figure 4

Occurrence Of Each Behavior Over Subject Areas
(First-year and student teachers combined)

Subject Area	Behavior: Instructing, Presenting, (N=409)	Reinforcement Activities, Games (N=347)	Management (N=285)	Drill, Practice, Review (N=171)	Enrichment, Time out, Fillers (N=80)	Evaluation of Student Progress (N=54)	Total (1346)
	%	%	%	%	%	%	
Art	9.5	14.1	1.4	6.4	52.5	0	
Discipline methods	0	0	36.5	0	0	0	
English	6.3	1.7	1.4	6.4	0	1.8	
Equipment management	0	0	6.3	0	1.3	0	
Games	.2	3.2	1.4	0	25.0		
Health	3.7	1.7	0	0	1.3	0	
History	2.9	1.7	.3	1.8	0	1.8	
Math	13.7	19.6	5.3	12.3	0	14.8	
Misc.	3.9	.9	6.3	.6	5.0	9.2	
Music	5.6	3.4	1.7	1.2	5.0	0	
P.E.	4.2	6.0	.7	1.2	0	0	
Reading	11.5	13.2	11.2	16.9	5.0	14.8	
Room management	0	0	17.2	0	0	0	
Science	21.5	14.4	1.7	1.2	1.3	0	
Social studies	7.3	2.9	.3	2.3	1.3	5.6	
Spelling	4.4	8.6	2.5	3.5	1.3	11.1	
Test and review	.2	0	1.7	5.3	0	29.6	
Writing	4.9	8.3	3.8	40.9	1.3	11.1	
Totals	100	100	100	100	100	100	

Figure 5

Occurrence Of Each Behavior Over Subject Areas
(First-year and student teachers separated)

Subject Area	Behavior: Instructing, Presenting, (N=267,142)		Reinforcement Activities, Games (N=199,148)		Management (N=181,104)		Drill, Practice, Review (N=169,2)		Enrichment, Time out Fillers (N=51,29)		Evaluation of Student Progress (N=40,14)	
	1st	ST	1st	ST	1st	ST	1st	ST	1st	ST	1st	ST
	%	%	%	%	%	%	%	%	%	%	%	%
Art	11.6	5.6	10.5	18.9	1.1	1.9	6.5	0	51.0	55.2	0	0
Discipline methods	0	0	0	0	39.8	30.8	0	0	0	0	0	0
English	6.3	6.3	2.0	1.4	2.2	0	6.5	0	0	0	2.5	0
Equipment management	0	0	0	0	3.9	10.6	0	0	0	3.4	0	0
Games	1.0	0	5.5	0	2.2	0	0	0	25.5	24.1	0	0
Health	3.4	4.2	2.5	.7	0	0	0	0	2.0	0	0	0
History	4.1	.7	2.0	1.4	.5	0	1.8	0	0	0	2.5	0
Math	10.9	19.0	19.1	20.3	5.5	4.8	12.4	0	0	0	15.0	14.3
Misc.	2.6	6.3	1.5	0	7.7	3.8	.6	0	3.9	6.9	7.5	14.3
Music	5.6	5.6	2.5	4.7	1.7	1.9	1.2	0	3.9	6.9	0	0
P.E.	3.4	5.6	8.5	2.7	1.1	0	1.2	0	0	0	0	0
Reading	10.1	14.1	13.1	13.5	9.9	13.5	17.1	0	7.8	0	17.5	7.1
Room management	0	0	0	0	14.9	21.2	0	0	0	0	0	0
Science	21.3	21.8	14.1	14.9	.5	3.8	1.2	0	2.0	0	0	0
Social studies	9.0	4.2	4.5	.7	.5	0	2.4	0	0	3.4	7.5	0
Spelling	4.1	4.9	8.0	9.5	3.9	0	3.5	0	2.0	0	7.5	21.4
Test and review	1.0	0	0	0	1.1	2.9	4.1	100	0	0	25.0	42.9
Writing	6.7	1.4	6.0	11.5	3.3	4.8	41.4	0	2.0	0	15.0	0
Totals	100	100	100	100	100	100	100	100	100	100	100	100

First-year teachers = 907, Student teachers = 439, Total = 1346

Figure 6

Occurrence Of Each Behavior Withn A Given Subject Area
(First-year and student teachers combined)

Subject Area	Behavior: Instructing, Presenting, %	Reinforcement Activities, Games %	Management %	Drill, Practice, Review %	Enrichment, Time out Fillers %	Evaluation of Student Progress %	N	Total %
Art	26.9	33.8	2.7	7.6	29.0	0	145	100
Discipline methods	0	0	100.0	0	0	0	104	100
English	54.2	12.5	8.3	22.9	0	2.1	48	100
Equipment management	0	0	94.7	0	5.3	0	19	100
Games	2.8	30.6	11.0	0	55.6	0	36	100
Health	68.2	27.3	0	0	4.5	0	22	100
History	52.2	26.1	4.3	13.0	0	4.3	23	100
Math	33.3	40.1	8.9	12.5	0	4.8	168	100
Misc.	34.0	6.4	38.3	2.1	8.5	10.6	47	100
Music	50.0	26.1	10.9	4.3	8.7	0	46	100
P.E.	40.5	50.0	4.8	4.8	0	0	42	100
Reading	28.3	27.7	19.3	17.5	2.4	4.8	166	100
Room management	0	0	100.0	0	0	0	49	100
Science	60.0	34.2	3.4	1.4	1.0	0	146	100
Social studies	61.2	20.4	2.0	8.2	2.0	6.1	49	100
Spelling	26.5	44.1	10.3	8.8	1.5	8.8	68	100
Test and review	3.2	0	16.1	29.0	0	51.6	31	100
Writing	14.3	21.2	8.0	51.1	1.0	4.4	137	100
						Total	1,346	

42

Figure 7

Occurrence Of Each Behavior Within A Given Subject Area
(First-year and student teachers separated)

Subject Area	Behavior: Instructing, Presenting, 1st %	ST %	Reinforcement Activities, Games 1st %	ST %	Management 1st %	ST %	Drill, Practice, Review 1st %	ST %	Enrichment, Time out Fillers 1st %	ST %	Evaluation of Student Progress 1st %	ST %	Total N	Total N	Total 1st %	Total ST %
Art	34.1	14.8	23.1	51.9	2.2	3.7	12.1	0	28.6	29.6	0	0	91	54	100	100
Discipline methods	0	0	0	0	100.0	100.0	0	0	0	0	0	0	72	32	100	100
English	46.0	81.8	10.8	18.1	10.8	0	29.7	0	0	0	2.7	0	37	11	100	100
Equipment management	0	0	0	0	100.0	91.7	0	0	0	8.3	0	0	7	12	100	100
Games	3.4	0	37.9	0	13.8	0	0	0	44.8	100.0	0	0	29	7	100	100
Health	60.0	85.7	33.3	14.3	0	0	0	0	6.7	0	0	0	15	7	100	100
History	55.0	33.3	20.0	66.7	5.0	0	15.0	0	0	0	5.0	0	20	3	100	100
Math	27.9	42.3	36.5	46.9	9.6	7.8	20.2	0	0	0	5.8	3.1	104	64	100	100
Misc.	23.3	52.9	10.0	0	46.7	23.5	3.3	0	6.7	11.8	10.0	11.8	30	17	100	100
Music	55.6	42.1	18.5	36.8	11.1	10.5	7.4	0	7.4	10.5	0	0	27	19	100	100
P.E.	30.0	66.7	56.7	33.3	6.7	0	6.7	0	0	0	0	0	30	12	100	100
Reading	24.3	36.4	23.4	36.4	16.2	25.5	26.1	0	3.6	0	6.3	1.8	111	55	100	100
Room management	0	0	0	0	100.0	100.0	0	0	0	0	0	0	27	22	100	100
Science	64.0	54.4	31.5	38.6	1.1	7.0	2.2	0	1.1	0	0	0	89	57	100	100
Social studies	58.5	75.0	22.0	12.5	2.4	0	9.8	0	0	12.5	7.3	0	41	8	100	100
Spelling	25.0	29.2	36.4	58.2	15.9	0	14.6	0	2.3	0	6.8	12.5	44	24	100	100
Test and review	5.0	0	0	0	10.0	27.3	35.0	18.2	0	0	50.0	54.5	20	11	100	100
Writing	15.9	8.3	10.6	70.8	5.3	20.8	61.9	0	.9	0	5.3	0	113	24	100	100
												Total	907	439	= 1,346	

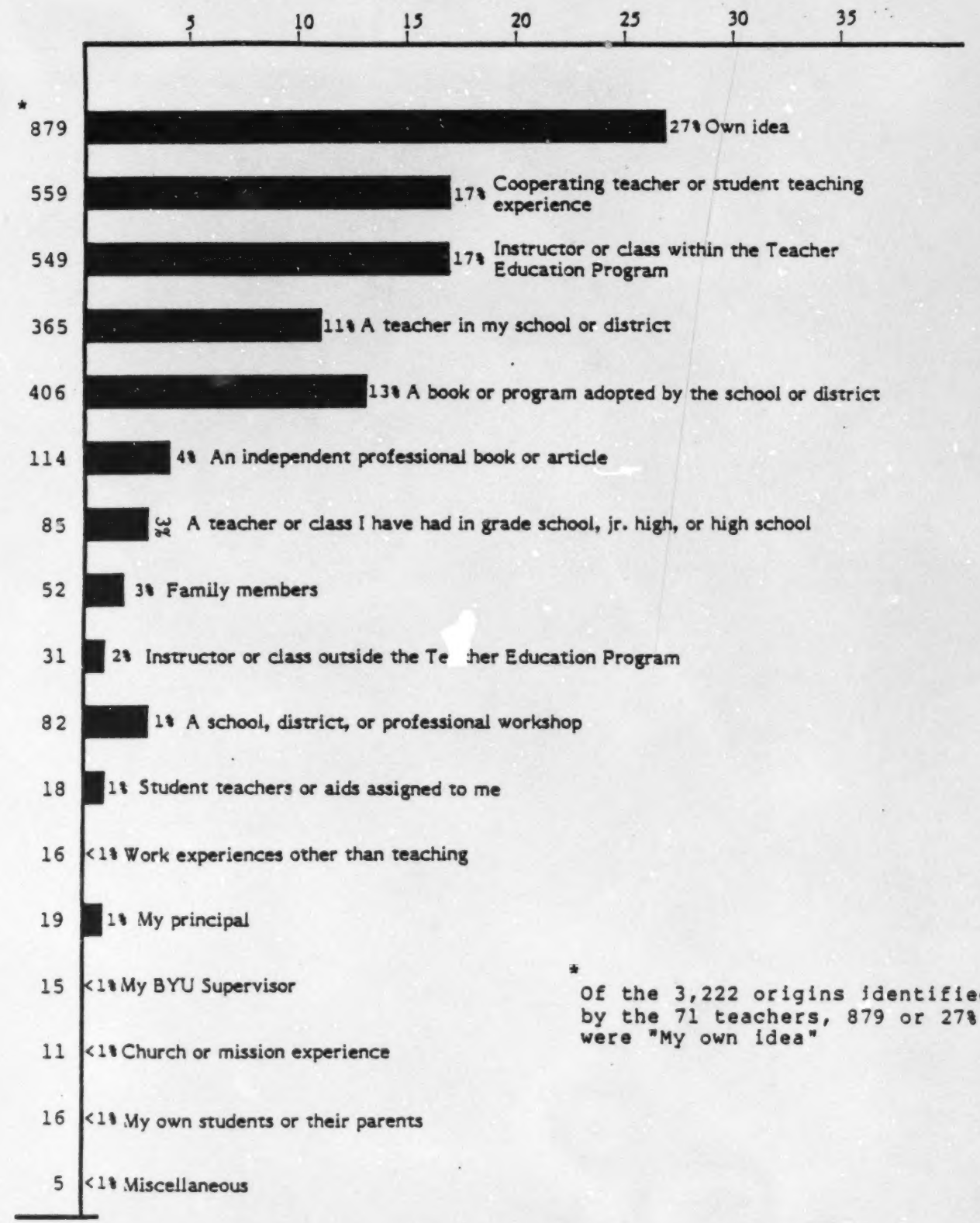
Figure 8

Origins Of Uncategorized Teaching Behaviors

1. My own idea (from my own teaching experience, from materials I put together myself, from a lot of different background material, or I do not remember where it all came from)
2. My cooperating teacher or my student teaching experience
3. A professor or class within the teacher education program
4. A teacher in my school
5. A book or program adopted by my school or district (textbook, SRA Reading Program)
6. A professional book or article I read
7. A teacher or class I had in school (grade school, junior high, high school)
8. Members of my family
9. A professor or class outside the teacher education program
10. A workshop or professional organization ("Movtivating Students," U.E.A)
11. Student teachers or teacher aids who have been assigned to me
12. My work experiences outside of teaching (Peace Corps, child care center)
13. My school principal
14. My college supervisor
15. My Church or mission experience
16. My own students in the classroom, or their parents
17. Miscellaneous (janitor, school lunch people)

Figure 9

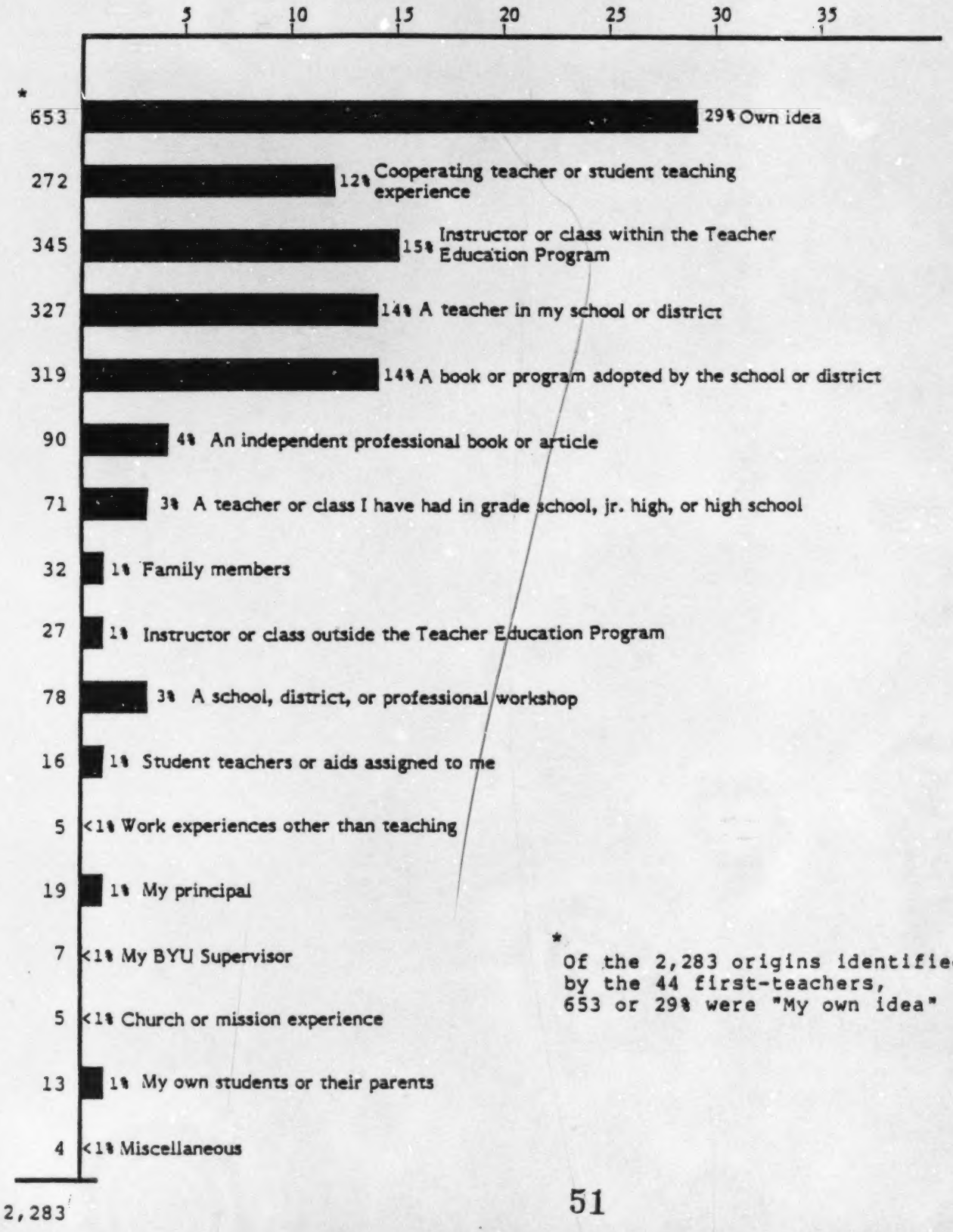
Origins of Uncategorized Teaching Behaviors
All Teachers Combined (n = 71)


5
10
15
20
25
30
35
879 27% Own idea
559 17% Cooperating teacher or student teaching experience
549 17% Instructor or class within the Teacher Education Program
365 11% A teacher in my school or district
406 13% A book or program adopted by the school or district
114 4% An independent professional book or article
85 3% A teacher or class I have had in grade school, jr. high, or high school
52 3% Family members
31 2% Instructor or class outside the Te her Education Program
82 1% A school, district, or professional workshop
18 1% Student teachers or aids assigned to me
16 <1% Work experiences other than teaching
19 1% My principal
15 <1% My BYU Supervisor
11 <1% Church or mission experience
16 <1% My own students or their parents
5 <1% Miscellaneous
3,222

* Of the 3,222 origins identified by the 71 teachers, 879 or 27% were "My own idea"

Figure 10

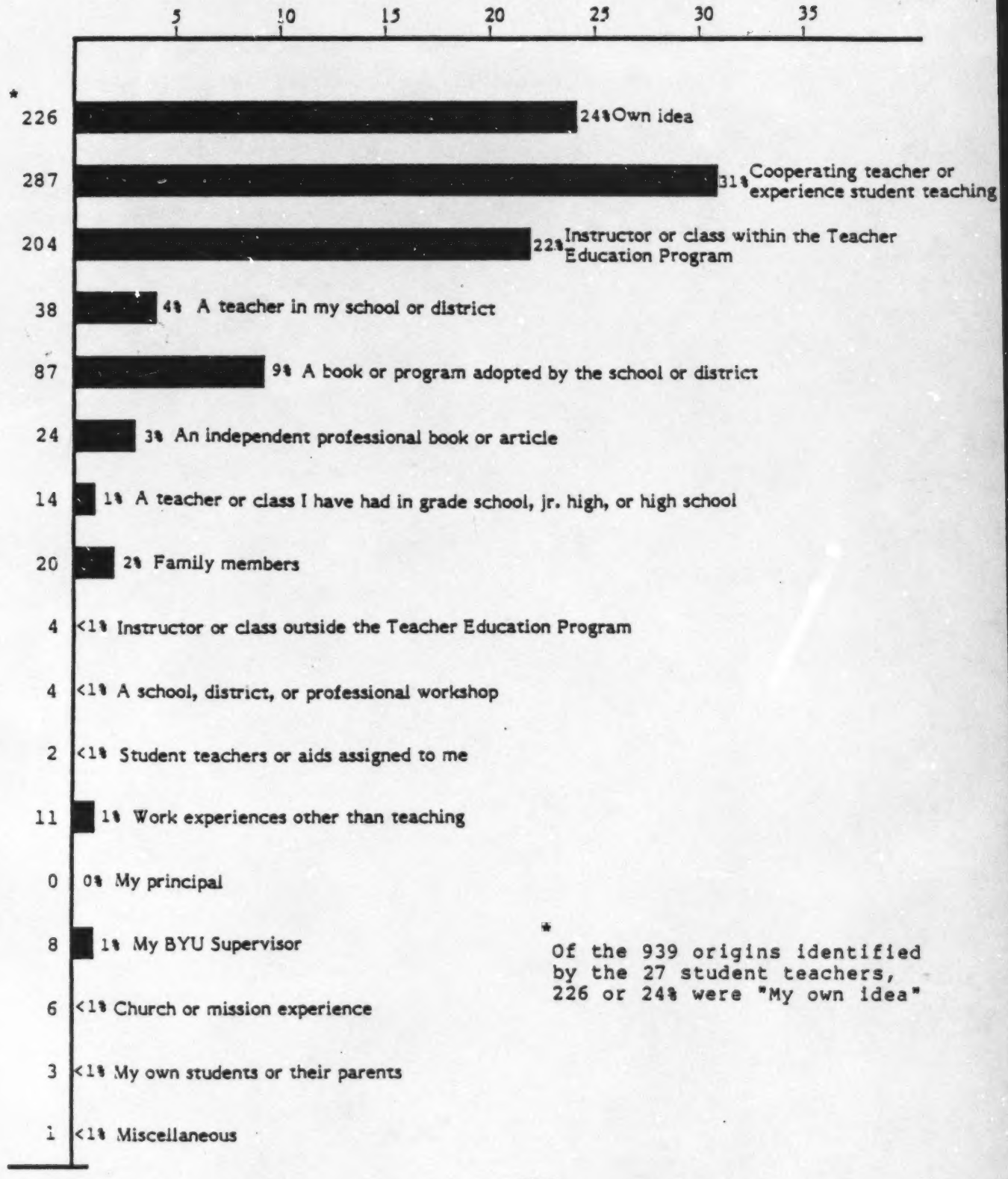
Origins of Uncategorized Teaching Behaviors
First-Year Teachers (n = 44)


5
10
15
20
25
30
35
*
653 29% Own idea
272 12% Cooperating teacher or student teaching experience
345 15% Instructor or class within the Teacher Education Program
327 14% A teacher in my school or district
319 14% A book or program adopted by the school or district
90 4% An independent professional book or article
71 3% A teacher or class I have had in grade school, jr. high, or high school
32 1% Family members
27 1% Instructor or class outside the Teacher Education Program
78 3% A school, district, or professional workshop
16 1% Student teachers or aids assigned to me
5 <1% Work experiences other than teaching
19 1% My principal
7 <1% My BYU Supervisor
5 <1% Church or mission experience
13 1% My own students or their parents
4 <1% Miscellaneous
2,283

* Of the 2,283 origins identified by the 44 first-teachers, 653 or 29% were "My own idea"

Figure 11

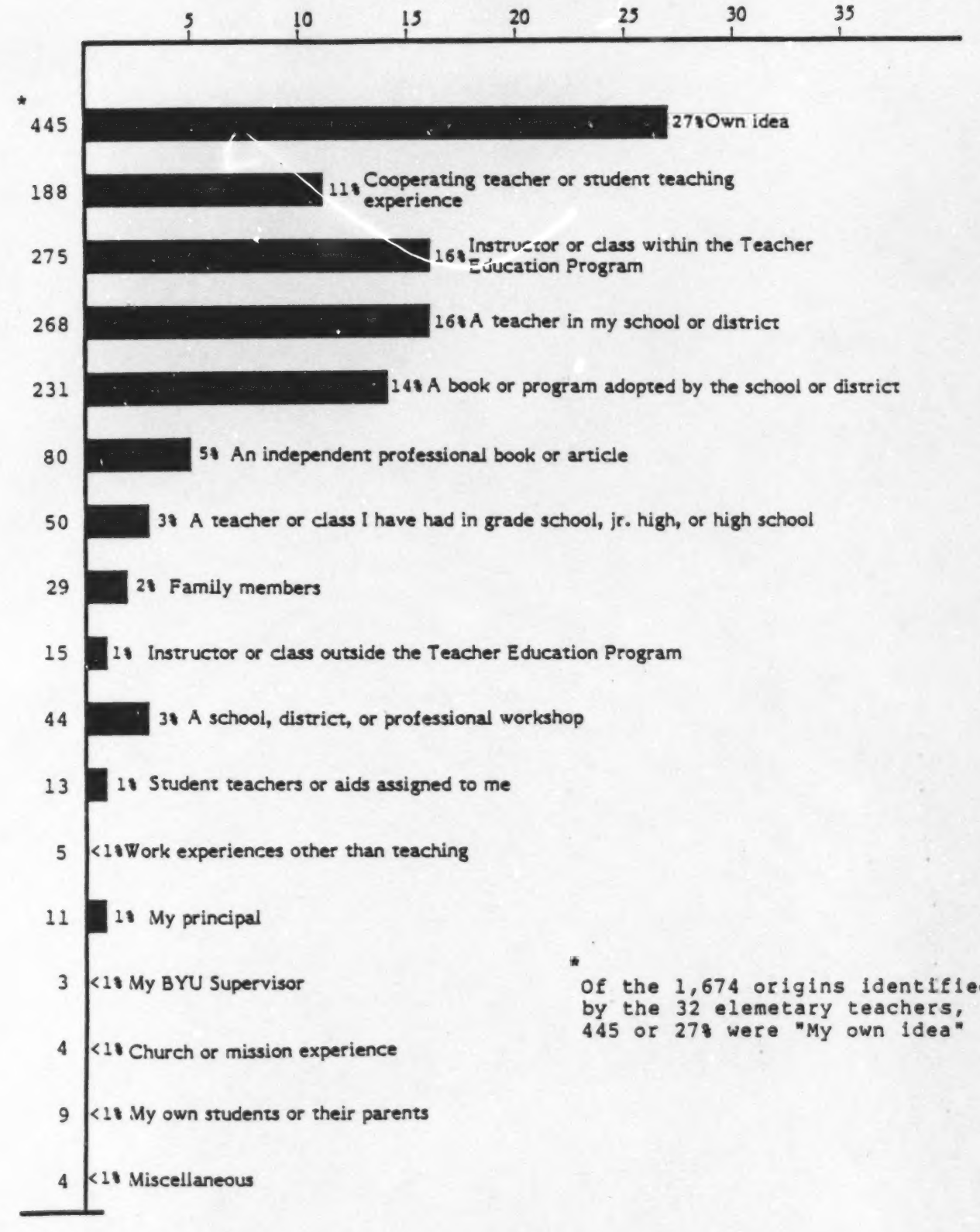
Origins of Uncategorized Teaching Behaviors
Student Teachers (n = 27)


5
10
15
20
25
30
35
226 24% Own idea
287 31% Cooperating teacher or experience student teaching
204 22% Instructor or class within the Teacher Education Program
38 4% A teacher in my school or district
87 9% A book or program adopted by the school or district
24 3% An independent professional book or article
14 1% A teacher or class I have had in grade school, jr. high, or high school
20 2% Family members
4 <1% Instructor or class outside the Teacher Education Program
4 <1% A school, district, or professional workshop
2 <1% Student teachers or aids assigned to me
11 1% Work experiences other than teaching
0 0% My principal
8 1% My BYU Supervisor
6 <1% Church or mission experience
3 <1% My own students or their parents
1 <1% Miscellaneous
939

* Of the 939 origins identified by the 27 student teachers, 226 or 24% were "My own idea"

Figure 12

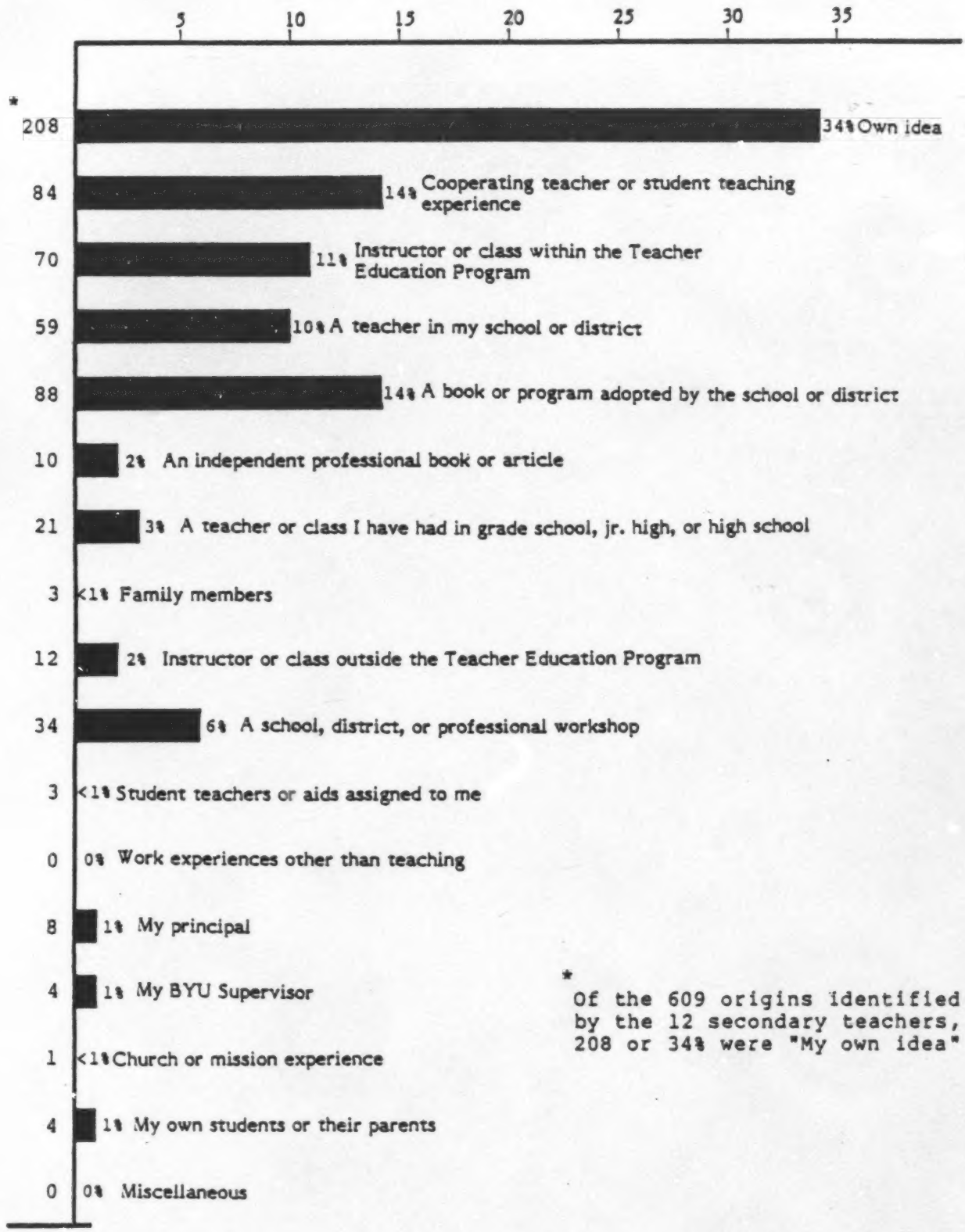
Origins of Uncategorized Teaching Behaviors
First-year teachers, Elementary (n = 32)


5
10
15
20
25
30
35
445 27% Own idea
188 11% Cooperating teacher or student teaching experience
275 16% Instructor or class within the Teacher Education Program
268 16% A teacher in my school or district
231 14% A book or program adopted by the school or district
80 5% An independent professional book or article
50 3% A teacher or class I have had in grade school, jr. high, or high school
29 2% Family members
15 1% Instructor or class outside the Teacher Education Program
44 3% A school, district, or professional workshop
13 1% Student teachers or aids assigned to me
5 <1% Work experiences other than teaching
11 1% My principal
3 <1% My BYU Supervisor
4 <1% Church or mission experience
9 <1% My own students or their parents
4 <1% Miscellaneous
1,674

* Of the 1,674 origins identified by the 32 elemetary teachers, 445 or 27% were "My own idea"

Figure 13

Origins of Uncategorized Teaching Behaviors
First-year teachers, Secondary (n = 12)


5
10
15
20
25
30
35
208 34% Own idea
84 14% Cooperating teacher or student teaching experience
70 11% Instructor or class within the Teacher Education Program
59 10% A teacher in my school or district
88 14% A book or program adopted by the school or district
10 2% An independent professional book or article
21 3% A teacher or class I have had in grade school, jr. high, or high school
3 <1% Family members
12 2% Instructor or class outside the Teacher Education Program
34 6% A school, district, or professional workshop
3 <1% Student teachers or aids assigned to me
0 0% Work experiences other than teaching
8 1% My principal
4 1% My BYU Supervisor
1 <1% Church or mission experience
4 1% My own students or their parents
0 0% Miscellaneous
609

* Of the 609 origins identified by the 12 secondary teachers, 208 or 34% were "My own idea"

Figure 14

Origins Of Categorized Teaching Behaviors
(First-year and student teachers combined)

	Behavior						
	Instructing, Presenting,	Reinforcement Activities, Games	Management	Drill, Practice, Review	Enrichment, Time out, Fillers	Evaluation of Student Progress	Total
	(N=1048)	(N=390)	(N=767)	(N=566)	(N=228)	(N=199)	(3198)
Origin (Fig 8)	%	%	%	%	%	%	
1	23.9	27.7	29.6	29.3	58.3	29.6	
2	25.8	14.1	20.5	16.6	11.0	17.1	
3	14.1	11.0	9.0	8.8	3.9	14.1	
4	7.8	11.5	8.3	10.4	9.6	4.0	
5	12.1	8.5	7.8	11.0	1.8	8.5	
6	7.9	9.7	9.5	8.7	4.4	9.5	
7	5.2	5.4	4.2	4.8	4.4	3.5	
8	.9	1.3	1.3	1.4	3.1	1.0	
9	1.0	1.0	1.7	.4	0	1.0	
10	6.1	4.1	4.0	6.9	1.3	6.5	
11	1.2	3.6	.7	.7	0	.5	
12	.5	1.3	.8	.2	1.8	1.0	
13	.7	.3	1.0	.2	0	.5	
14	.8	0	.3	0	.4	.5	
15	.8	.3	.3	.2	0	.5	
16	1.0	0	.9	.5	0	1.5	
17	2	.3	.1	0	0	.5	
Totals	100	100	100	100	100	100	

Figure 15

Origins Of Categorized Teaching Behaviors
(First-year and student teachers separated)

Origin (Fig 8)	Behavior: Instructing, Presenting, (N=696,352)		Reinforcement Activities, Games (N=315,75)		Management (N=562,205)		Drill, Practice, Review (N=444,122)		Enrichment, Time out Fillers (N=83,145)		Evaluation of Student Progress (N=158,41)	
	1st	ST	1st	ST	1st	ST	1st	ST	1st	ST	1st	ST
	%	%	%	%	%	%	%	%	%	%	%	%
1	26.1	19.3	28.0	26.7	30.6	26.8	32.4	18.0	18.0	81.4	31.6	22.0
2	11.8	23.9	11.4	25.3	16.5	31.0	12.4	32.0	16.9	7.6	15.8	22.0
3	11.0	20.5	9.8	16.0	6.9	14.6	7.9	12.3	4.8	3.4	12.0	22.0
4	10.0	3.7	12.7	6.7	10.5	2.4	11.5	6.6	24.0	1.4	5.1	0
5	12.8	10.8	8.6	8.0	9.6	2.9	11.0	10.7	4.8	0	8.9	7.3
6	7.3	9.1	9.2	12.0	8.9	11.2	7.0	14.8	9.6	1.4	8.9	12.0
7	6.7	2.0	6.3	1.3	5.2	1.5	6.1	0	12.0	0	3.8	2.4
8	.3	2.0	.6	4.0	1.4	1.0	1.6	.8	0	4.8	1.3	0
9	1.3	.3	1.3	0	2.0	1.0	.5	0	0	0	1.3	0
10	7.0	4.3	5.1	0	4.8	2.0	7.9	3.3	3.6	0	8.2	0
11	1.3	.9	4.4	0	.7	.5	.9	0	0	0	.6	0
12	.7	0	1.6	0	1.1	0	.2	0	4.8	0	1.3	0
13	1.0	0	.3	0	.9	1.5	.2	0	0	0	.6	0
14	.4	1.4	0	0	.4	0	0	0	1.2	0	0	2.4
15	.9	.6	.3	0	.2	.5	.2	0	0	0	0	2.4
16	.9	1.4	0	0	.2	2.9	.2	1.6	0	0	.6	4.9
17	.3	0	.3	0	.2	0	0	0	0	0	0	2.4
Totals	100	100	100	100	100	100	100	100	100	100	100	100

First-year teachers = 2258, Student teachers = 940, Total = 3198

Figure 16

Origins Of Categorized Teaching Behaviors
(First-year Elementary and Secondary Teachers Separated)

Origin (Fig 8)	Behavior: Instructing, Presenting, (N=445,251)		Reinforcement Activities, Games (N=239,76)		Management (N=377,185)		Drill, Practice, Review (N=269,175)		Enrichment, Time out Fillers (N=76,7)		Evaluation of Student Progress (N=47,111)	
	El	Se	El	Se	El	Se	El	Se	El	Se	El	Se
	%	%	%	%	%	%	%	%	%	%	%	%
1	21.8	33.9	30.1	21.1	27.9	36.2	32.7	32.0	10.5	100.0	21.3	36.0
2	9.9	15.1	9.2	18.4	14.9	20.0	10.8	14.9	18.4	0	12.8	17.1
3	12.8	7.6	12.6	1.3	9.0	2.7	9.7	5.1	5.3	0	25.5	6.3
4	11.2	7.6	13.0	11.8	11.9	7.6	12.3	10.3	26.3	0	4.3	5.4
5	15.0	8.8	8.8	7.9	11.7	5.4	10.4	12.0	5.3	0	6.4	9.9
6	8.8	4.8	9.6	7.9	9.3	8.1	8.2	5.1	10.5	0	10.6	8.1
7	7.9	4.8	7.5	2.6	5.0	5.4	6.3	5.7	13.2	0	2.1	4.5
8	0	.8	0	2.6	0	4.3	0	4.0	0	0	0	1.8
9	1.1	2.0	.4	3.9	2.4	1.1	0	1.1	0	0	2.1	.9
10	5.8	9.2	3.8	9.2	4.5	5.4	6.7	9.7	3.9	0	6.4	9.0
11	0	4.0	2.5	10.5	1.1	0	1.5	0	0	0	0	.9
12	1.1	0	2.1	0	1.6	0	.4	0	5.3	0	4.3	0
13	1.1	.8	0	1.3	.5	1.6	.4	0	0	0	2.1	0
14	.2	.8	0	0	0	1.1	0	0	1.3	0	0	0
15	1.3	0	0	1.3	0	.5	.4	0	0	0	0	0
16	1.3	0	0	0	0	.5	.4	0	0	0	2.1	0
17	.4	0	.4	0	.3	0	1.0	0	0	0	0	0
Totals	100	100	100	100	100	100	100	100	100	100	100	100

Elementary teachers = 1453, Secondary teachers = 805, Total = 2258

52

REFERENCES

Adams, R. D. (1978) Western Kentucky University follow-up evaluation of teacher education graduates. ED 176 989.

Baer, G. T. & Foster, W. W. (1974) Teacher preparation: What graduates tell us. ED 103 402.

Carpenter, J. A. (1974) Report of a survey of placement of teacher education graduates of Western Kentucky University for academic years 1969-70, 1970-71, 1971-72, and 1972-73: Survey No. 2. ED 090 177.

Daly, K. (1977) A study of the 1976 graduates of school of education's teacher preparation programs. Massachusetts University, Amherst School of Education. ED 150 104.

Friebus, R. J. (1977) Agents of socialization involved in student teaching. Journal of Educational Research, 70, 263-268.

Gage, N. L. (1972) Teacher Effectiveness and Teacher Education: The Search for a Scientific Basis. Palo Alto: Pacific Books.

Hoste, R. (1982) Sources of influence on teaching practice in the evaluation of courses in teacher education. Journal of Education for Teaching, 8, 252-261.

Ingersoll, G. (1976) Assessing inservice training needs through teacher responses. Journal of Teacher Education, 27, 169-173.

Iannocone, L. (1963) Student teaching: A transitional stage in the making of a teacher. Theory and Practice, 2, 73-80.

Karmos, A. H. & Jacko, C. M. (1977) The role of significant others during the student teacher experience. Journal of Teacher Education, 28, 51-55.

Kline, W. A. & Dale, L. (1975) A modest proposal for changing teacher education. Teachers College Record, 77, 99-106.

McAlay, J. D. (1960) How much influence has a co-operating teacher? Journal of Teacher Education, 11, 79-83.

Morris, J. (1974) Effects of university supervisor on the performance and adjustment of student teachers. Journal of Educational Research, 67, 358-62.

Patty, A. H. (1973) Classroom teachers will replace college supervisors. Contemporary Education, 44, 179-83.

Pigge, F. L. (1978) Teacher competencies: Need, proficiency, and where proficiency was developed. Journal of Teacher Education, 29, 70-76.

Raths, J. D. & Katz, L. G. (1982) The best of intentions for the education of teachers. Journal of Education for Teaching, 8, 275-83.

Soares, A. T. & Soares, L. M. (1968) Self-perceptions of student teachers and the meaningfulness of their experience. Journal of Teacher Education, 19, 187-91.

Yee, A. H. (1969) Do cooperating teachers influence the attitudes of student teachers? Journal of Educational Psychology, 60, 327-332.

Zahorick, J. A. (1977) Teacher verbal behavior: Perceived value, source of acquisition, and method of justification. Journal of Teacher Education, 28, 51-55.